

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A contact for a vacuum interrupter , comprising:
 - a contact plate; and
 - a contact carrier comprising:
 - ~~a first end face which is fitted with the contact plate, and~~
 - a peripheral face which is formed with a ~~slit portion~~ plurality of slit portions in such a manner as to form a coil part between two adjacent slit portions of the plurality of slit portions, the coil part flowing a current such that a longitudinal magnetic field is formed in an axial direction of the contact carrier, and
 - a first end face fitted with the contact plate, the first end face ~~fitted with the contact plate~~ being formed with a circumferential slit portion which extends circumferentially between the two adjacent slit portions of the plurality of slit portions and has an end connecting to one of the adjacent slit portions of the plurality of slit portions connects to the slit portion.
2. (Original) The contact for the vacuum interrupter as claimed in claim 1, wherein the contact plate is formed with a slit which connects to the circumferential slit portion.
3. (Currently Amended) The contact for the vacuum interrupter as claimed in claim 1, wherein
 - when the contact carrier defines an outer diameter D in a following range:
$$60 \text{ mm} \leq D \leq 200 \text{ mm};$$
 - the contact carrier defines a length L in a following range:
$$0.1D \text{ mm} \leq L \leq 0.5D \text{ mm},$$
 - each of the slit portion portions formed in the peripheral face of the contact carrier is defined in number S1 as follows:
$$0.03D / \text{mm} \leq S1 \leq 0.1D / \text{mm},$$
 - relative to an axis of the contact carrier, each of the slit portion portions formed in the

peripheral face of the contact carrier defines an inclination angle α expressed as below:

$$60^\circ \leq \alpha \leq 80^\circ,$$

each of the slit portion portions formed in the peripheral face of the contact carrier defines an azimuth angle β expressed as below:

$$45^\circ \leq \beta \leq 120^\circ, \text{ and}$$

the circumferential slit portion formed in the first end face of the contact carrier defines an azimuth angle γ expressed as below:

$$(30/S1)^\circ \leq \gamma \leq (270/S1)^\circ.$$

4. (Original) The contact for the vacuum interrupter as claimed in claim 3, wherein the contact carrier has a wall thickness W in a following range:

$$6 \text{ mm} \leq W \leq 12 \text{ mm}.$$

5. (Currently Amended) The contact for the vacuum interrupter as claimed in claim 2, wherein

the slit formed in the contact plate is substantially linear and extends radially from a center of the contact plate, and

the slit formed in the contact plate connects to a section connecting the circumferential slit portion and the ~~slit portion~~ one of the adjacent slit portions which is formed in the peripheral face of the contact carrier.

6. (Currently Amended) The contact for the vacuum interrupter as claimed in claim 2, wherein

the slit formed in the contact plate is substantially linear and extends radially from a center of the contact plate, and

the slit formed in the contact plate connects to ~~an initial~~ the end of the circumferential slit portion.

7. (Currently Amended) The contact for the vacuum interrupter as claimed in claim 2, wherein

the slit formed in the contact plate is substantially linear, and extends in such a manner as to be offset from a line passing through a center of the contact plate, the slit formed in the contact plate extends in parallel with the line through the center of the contact plate by a predetermined distance, and

the slit formed in the contact plate connects to ~~an initial~~ the end of the circumferential slit portion.

8. (Original) The contact for the vacuum interrupter as claimed in claim 1, wherein the contact carrier further comprises a second end face opposite to the first end face, and

the second end face of the contact carrier is joined with a contact end plate.

9. (Original) The contact for the vacuum interrupter as claimed in claim 1, wherein the contact carrier is monolithic with a contact end plate.

10. (Original) The vacuum interrupter as claimed in claim 1, wherein a pair of the contacts are disposed in such a manner as to oppose each other substantially coaxially, the opposing contacts defining a predetermined gap G therebetween in a following range:

$$15 \text{ mm} \leq G \leq 100 \text{ mm}.$$

11. (Currently Amended) A vacuum interrupter, comprising:

a first contact fixed to a peak end of a stationary rod which is fixed to a first end plate of a vacuum container; and

a second contact fixed to a peak end of a movable rod which is fixed to a second end plate of the vacuum container opposite to the first end plate, the second contact opposing the first contact substantially coaxially in such a manner as to define a predetermined gap G therebetween in a following range:

$$15 \text{ mm} \leq G \leq 100 \text{ mm},$$

each of the first contact and the second contact, comprising:

a contact plate; and

a contact carrier comprising:

~~a first end face which is fitted with the contact plate, and~~
a peripheral face which is formed with a ~~slit portion~~ plurality of slit portions in such a manner as to form a coil part between two adjacent slit portions of the plurality of slit portions, the coil part flowing a current such that a longitudinal magnetic field is formed in an axial direction of the contact carrier, and

a first end face fitted with the contact plate, the first end face ~~fitted with the contact plate~~ being formed with a circumferential slit portion which ~~connects to the slit portion~~ extends circumferentially between the two adjacent slit portions of the plurality of slit portions and has an end connection to one of the two adjacent slit portions of the plurality of slit portions.

12. (Original) The vacuum interrupter as claimed in claim 11, wherein the contact plate is formed with a slit which connects to the circumferential slit portion.

13. (Currently Amended) The vacuum interrupter as claimed in claim 11, wherein when the contact carrier defines an outer diameter D in a following range:

$$60 \text{ mm} \leq D \leq 200 \text{ mm};$$

the contact carrier defines a length L in a following range:

$$0.1D \text{ mm} \leq L \leq 0.5D \text{ mm},$$

each of the slit portion portions formed in the peripheral face of the contact carrier is defined in number S1 as follows:

$$0.03D / \text{mm} \leq S1 \leq 0.1D / \text{mm},$$

relative to an axis of the contact carrier, each of the slit portion portions formed in the peripheral face of the contact carrier defines an inclination angle α expressed as below:

$$60^\circ \leq \alpha \leq 80^\circ,$$

each of the slit portion portions formed in the peripheral face of the contact carrier defines an azimuth angle β expressed as below:

$$45^\circ \leq \beta \leq 120^\circ, \text{ and}$$

the circumferential slit portion formed in the first end face of the contact carrier defines an azimuth angle γ expressed as below:

$$(30/S1)^{\circ} \leq \gamma \leq (270/S1)^{\circ}.$$

14. (Original) The vacuum interrupter as claimed in claim 13, wherein the contact carrier has a wall thickness W in a following range:

$$6 \text{ mm} \leq W \leq 12 \text{ mm}.$$

15-21 (Canceled)

22. (Previously Presented) A vacuum interrupter, comprising:
two contacts disposed coaxially to oppose each other, a predetermined gap G between the two contacts being given by $15 \text{ mm} \leq G \leq 100 \text{ mm}$, each of the two contacts comprising:
a plate;
a carrier having a first end face mounted to the plate; and
slits formed in the carrier, the slits defining a coil portion in the carrier, a current passing through the coil portion generating a longitudinal magnetic field along an axial direction of the carrier,
the slits comprising a first slit which comprises:
a circumferential slit portion formed in the first end face of the carrier,
and
an inclined slit portion formed in a peripheral face of the carrier at a predetermined inclination angle α with respect to an axis of the carrier and connected to an end of the circumferential slit portion, wherein the slits further comprises a second slit formed in the peripheral face of the carrier at the predetermined inclination angle α and extending from an axially middle position of the carrier.

23. (Original) The vacuum interrupter as claimed in claim 22, wherein the second slit has an opening in the second end face of the carrier.

24. (Currently Amended) The vacuum interrupter as claimed in claim 22, wherein when an outer diameter D of the carrier is $60 \text{ mm} \leq D \leq 200 \text{ mm}$,

$$(30/S1)^{\circ} \leq \gamma \leq (270/S1)^{\circ}.$$

14. (Original) The vacuum interrupter as claimed in claim 13, wherein the contact carrier has a wall thickness W in a following range:

$$6 \text{ mm} \leq W \leq 12 \text{ mm}.$$

15-21 (Canceled)

22. (Previously Presented) A vacuum interrupter, comprising:

two contacts disposed coaxially to oppose each other, a predetermined gap G between the two contacts being given by $15 \text{ mm} \leq G \leq 100 \text{ mm}$, each of the two contacts comprising:

a plate;

a carrier having a first end face mounted to the plate; and

slits formed in the carrier, the slits defining a coil portion in the carrier, a current passing through the coil portion generating a longitudinal magnetic field along an axial direction of the carrier,

the slits comprising a first slit which comprises:

a circumferential slit portion formed in the first end face of the carrier,

and

an inclined slit portion formed in a peripheral face of the carrier at a predetermined inclination angle α with respect to an axis of the carrier and connected to an end of the circumferential slit portion, wherein the slits further comprises a second slit formed in the peripheral face of the carrier at the predetermined inclination angle α and extending from an axially middle position of the carrier.

23. (Original) The vacuum interrupter as claimed in claim 22, wherein the second slit has an opening in the second end face of the carrier.

24. (Currently Amended) The vacuum interrupter as claimed in claim 22, wherein when an outer diameter D of the carrier is $60 \text{ mm} \leq D \leq 200 \text{ mm}$,

a length L of the carrier is given by $0.2D \text{ mm} \leq L \leq D \text{ mm}$,

a total number $S2$ of the first slits and the second slits is given by $0.1D / \text{mm} \leq S2 \leq 0.2D / \text{mm}$,

the inclination angle α is given by $60^\circ \leq \alpha \leq 80^\circ$,

an azimuth angle β of the inclined slit portion of the first slit and the second slit is given by $(540/S2)^\circ \leq \beta \leq (600/S2)^\circ$,

an azimuth angle δ between the inclined slit portion of the first slit, and the second slit is given by $(120/S2)^\circ \leq \delta \leq (600/S2)^\circ$, and

an azimuth angle γ of the circumferential slit portion of the first slit is given by $(120/S2)^\circ \leq \gamma \leq (600/S2)^\circ$.

25. (Original) The vacuum interrupter as claimed in claim 24, wherein a wall thickness W of the carrier is $6 \text{ mm} \leq W \leq 12 \text{ mm}$.

26. (Original) The vacuum interrupter as claimed in claim 22, wherein the second slit comprises a circumferential slit portion (N/A) formed in a second end face (1b) of the carrier.